

## AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

What is claimed is:

1. (Currently amended) A rapid vaccinia neutralization assay method comprising:

incubating a mixture comprising at least one cell, a labeled vaccinia virus comprising a reporter gene encoding an enzyme, invasin that encodes a detectable label, wherein the labeled invasin is a virus, and a candidate agent antibody under conditions wherein the vaccinia virus labeled invasin can invade the cell; and

detecting the activity of the enzyme detectable label within the cell,

wherein a decrease in the enzyme activity of detectable label in the cell due to the candidate ~~agent~~ antibody, relative to a control cell having not been contacted with the candidate antibody, indicates that the candidate ~~agent~~ antibody decreases invasion of the cell by the vaccinia virus, and invasin

wherein the assay is completed within 24 hours.

- 2-4. (Cancelled)

5. (Currently amended) The ~~method~~ assay of claim 1, wherein the ~~virus is an enveloped~~ vaccinia virus is vSC56, said reporter gene of the virus encoding  $\beta$ -galactosidase under control of a late vaccinia promoter P11.

6. (Cancelled)

7. (Currently amended) The ~~method~~ assay of claim 5, wherein the ~~enveloped virus~~ is vaccinia virus is vSC8, said reporter gene of the virus encoding  $\beta$ -galactosidase under control of a synthetic E/L promoter.

8. – 11. (Cancelled)

12. (Currently amended) The ~~method~~ assay of claim 1, wherein the ~~detectable label is a fluorescent protein~~ reporter gene encodes  $\beta$ -galactosidase, luciferase, peroxidase, alkaline phosphatase, or xanthine oxidase.

13. (Currently amended) The ~~method~~ assay of claim 1, wherein the ~~detectable label is an enzyme~~ reporter gene encodes  $\beta$ -galactosidase.

14. (Currently amended) The ~~method~~ assay of claim 1, wherein the candidate ~~agent~~ antibody is a vaccinia IgG (VIG), a monoclonal antibody, a polyclonal antibody, or an altered antibody.

15. (Currently amended) The ~~method~~ assay of claim 1, wherein the candidate ~~agent~~ antibody inhibits invasion of the cell by associating with the cell, or associates~~ing~~ with the labeled invasin vaccinia virus, or by associating both with the cell and vaccinia virus.

16. (Cancelled)

17. (Currently amended) The ~~method~~ assay of claim 1, wherein the cell is a mammalian cell.

18. (Currently amended) The ~~method~~ assay of claim 17, wherein the cell is a human cell.

19-20. (Cancelled)

21. (Currently amended) The ~~method~~ assay of claim 18, wherein the cell is selected from the group consisting of a lymphoid cell, a pulmonary cell, and an intestinal cell.

22 – 129. (Cancelled)

130. (Cancelled)

131. (Currently amended) The ~~method~~ assay of claim 13, wherein the method ~~results correlate with~~ is predictive of protection against viral lethality in a mouse model *in vivo*.

132. (Currently amended) The ~~method~~ assay of claim 1, wherein the assay is a high throughput assay.

133. (Currently amended) The ~~method~~ assay of claim 1, wherein the method further comprises quantitation of invasion of a cell by an invasin using of a standard curve.

134. (Currently amended) The ~~method~~ assay of claim 133, wherein the  $r^2$  of the standard curve is  $>0.9$ .

135. (Currently amended) The ~~method~~ assay of claim 1, wherein the method is performed in a plate comprising 96-wells.

136. (Currently amended) The ~~method~~ assay of claim 1, wherein the method provides results that are comparable to results obtained with ~~the classic~~ a PRNT neutralization assays.

137. (Currently amended) The ~~method~~ assay of claim 1, wherein the step of detecting the enzyme activity comprises measuring a change in the color or fluorescence of a substrate of the enzyme.

138. (Currently amended) The ~~method~~ assay of claim 137, wherein the measuring is conducted using an ELISA reader instrument.

139. (New) The assay of claim 131, wherein the mouse model is a SCID mouse model.